

Advanced Radar Surveillance Systems (ARSS-1)



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VENDOR DESCRIPTION

The Telephonics Advanced Radar Surveillance System (ARSS-1) is a state-of-the-art, high pulse compression ratio, ground surveillance radar which provides a high performance, highly accurate, reliable system to search, detect, acquire, track and classify targets in the course of performing the surveillance mission. The ARSS-1 system can be exposed to harsh field environment conditions, working to an intensified mission profile either day or night in any adverse weather conditions. It can be rapidly deployed (less than 5 minutes) and can be operated as a man-portable unit, as a stationary fixed based operation or mounted on a vehicle of choice. The lightweight Radar Control Display Unit (RCDU) contains the system control panel and radar display (a separate color display monitor and standard-issue laptop can be used as an option), in a combined single operator controlled source. The ARSS-1 is in production today with over 650 systems deployed worldwide.



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Business Category: Large Business

GBR

System Characteristics

Technology	MTI / LPI
Operating Frequency	X-Band, 8.75-8.95 GHz
Weight (w/o batteries & cables)	29 kg or 64 lbs
Transmit Power	Solid State, 5 W
Temperature	Operating -30°C to +55°C Storage -40°C to +60°C
Antenna	31dB, Planar-slotted array
Processing	Pulse Compression FFT CFAR
Data/Control Interface	RS-232/422/Ethernet
Scan Rate	7.8, 15.6 & 22.8°/min.
Coverage	Azimuth Sector Scan 0 to 359°
Target Classification	Audio Doppler Tones
Input Power	24 VDC, 80 W
Continuous Operations on Single Set of Batteries	14 hours +

Performance Characteristics

Detection Range	Personnel Vehicles	9 km 30 km
Accuracy	Range Azimuth	±25 m ±5 mils
Max. Remote Wired Distance		130 m
Detect Artillery Round Impacts		Yes
Target Capacity		60+/sec
Minimum Detectable Radial Velocity		.5 m/sec
Operational Availability (Ao)		99%
MTBF		2,000 hrs
MTTR		1 hr
Maintainability: 2 level BIT to LRM		3 levels: Operator, org. and depot

Options

GPS and Flux Gate Compass
Ethernet Remote Interface
Wireless Remote Operation
AC Power Adapter
Networked and Integrated with EO Systems